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BANGALORE UNIVERSITY
DEPARTMENT OF CIVIL ENGINEERING

Phone Off: 080-22961935 / 1946
E-mail: centrans9@gmail.com

JNANA BHARATHI
BANGALORE - 560 056

BUB/CTE/2014-15/

Date: 24-01-2015

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements and Asphalting to Thindlu old village in Ward No.09 (Change of Location Improvements and Asphalting to N.T.I Layout 7th , 8th Cross and other roads near park in Ward No.09}

Ref.: Letter No. Testing/BUB/2014-15/ dated 22-01-2015
Sample supplied to lab by: Sri.C.Shivaraj, Contractor, Bangalore.
Report required for: Assistant Executive Engineer,
Vidyaranyapura Sub-Division.
BBMP, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, IV Revision-2001
53.00	100.00	100
45.00	97.00	95-100
26.50	---	-
22.40	74.60	60-80
11.20	42.00	40-60
4.75	31.00	25-40
2.36	20.00	15-30
0.600	16.80	8-22
0.075	3.90	0-8

TABLE 1 2 :

SL No	Test conducted	Sample No	Results	Requirements as per IS:383-1970 & Test Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2007)
1	Flakiness & Elongation Index	01	20.40%	Not more than 30 %
2	Impact Value	----,,----	23.60 %	Not more then 24.00 % for BC Not more then 27.00 % for DBM Not more then 30.00 % for BM/WMM

*As Furnished by Client
The Results relate only to the items tested.

G.R. HARISH
Professor
Department of Civil Engineering
Jnana Bharathi Campus
BANGALORE UNIVERSITY
Bangalore-560 056.

24/01/2015
Dr. MANJESH .L
ME(Civil Engg.) Ph.D. MISTE, MIRC
Associate Professor
Department of Civil Engineering
Bangalore University Jnanabharathi Campus,
BANGALORE 560 056.
E-mail: manjeshl@yahoo.com

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Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements and Asphalting to Thindlu old village in Ward No.09 (Change of Location Improvements and Asphalting to N.T.I Layout 7th , 8th Cross and other roads near park in Ward No.09}

Ref.: Letter No. Testing/BUB/2014-15/ dated 22-01-2015
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Report required for: Assistant Executive Engineer,
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TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, IV Revision-2001
53.00	100.00	100
45.00	96.00	95-100
26.50	---	-
22.40	76.50	60-80
11.20	44.10	40-60
4.75	35.00	25-40
2.36	24.00	15-30
0.600	19.00	8-22
0.075	5.10	0-8

TABLE 1 2 :

SL No	Test conducted	Sample No	Results	Requirements as per IS:383-1970 & Test Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2007)
1	Flakiness & Elongation Index	01	21.70%	Not more than 30 %
2	Impact Value	----,,----	24.00%	Not more then 24.00 % for BC Not more then 27.00 % for DBM Not more then 30.00 % for BM/WMM

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AE-9

G.R. HARISH
Professor
Department of Civil Engineering
Jnana Bharathi Campus
BANGALORE UNIVERSITY
Bangalore-560 056.

Dr. MANJESH .L
ME(Civil Engg.) Ph.D. MISTE, MIRC
Associate Professor
Department of Civil Engineering
Bangalore University Jnanabharathi Campus,
BANGALORE 560 056.
E-mail: maniesnl@yahoo.com

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Phone Off: 080-22961935 / 1946
E-mail: centrans9@gmail.com

JNANA BHARATHI
BANGALORE - 560 056

BUB/CTE/2014-15/

Date: 29-01-2015

TEST REPORT ON BITUMINOUS MIXES
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: Testing of Bitumen Premix Sample (Semi Dense Bituminous Concrete-SDBC).
{Project*: Improvements and Asphalting to Thindlu old village in Ward No.09 (Change of Location Improvements and Asphalting to N.T.I Layout 7th , 8th Cross and other roads near park in Ward No.09}

Ref.: Letter No. Testing/BUB/2014-15/ dated 27-01-2015
Sample supplied to lab by: Sri.C.Shivaraj, Contractor, Bangalore.
Report required for: Assistant Executive Engineer,
Vidyaranyapura Sub-Division.
BBMP, Bangalore.

TEST RESULTS:

3. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.11%**
4. **Gradation Test** :

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-15 of MORTH Specifications-2001, (Grading – 2)
13.2	**100**	100
9.5	**95.20**	90—100
4.75	**44.00**	35—51
2.36	**33.00**	24—39
1.18	**22.60**	15—30
0.3	**17.00**	09—19
0.075	**5.20**	03—08

*As Furnished by Client

The Results relate only to the items tested.

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G.R. HARISH
Professor
Department of Civil Engineering
Jnana Bharathi Campus
BANGALORE UNIVERSITY
Bangalore-560 056.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ವಿದ್ಯಾರಣ್ಯಪುರ ಉಪ ವಿಭಾಗ
ಯಲಹಂಕ ವಲಯ,
ಬೃ. ಬೆಂ. ಮ. ಪಾ. ಬೆಂಗಳೂರು-9

29/01/2015

Dr. MANJESH .L
ME(Civil Engg.) Ph.D. MISTE, MIRC
Associate Professor
Department of Civil Engineering
Bangalore University, Jnanabharathi Campus,
BANGALORE 560 056.
E-mail: manjeshl@yahoo.com

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DEPARTMENT OF CIVIL ENGINEERING

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E-mail: centrans9@gmail.com

JNANA BHARATHI
BANGALORE - 560 056

Date: 29-01-2015

TABLE 12 :

SL No	Test conducted	Sample No	Results	**Requirements** as per IS:383-1970 & Test Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2007)
1	Flakiness & Elongation Index	01	**24.30%**	Not more than 30 %
2	Impact Value	----,,----	**22.70 %**	Not more then 24.00 % for BC Not more then 27.00 % for DBM Not more then 30.00 % for BM/WMM
3	Water absorption	----,,----	**0.50%**	Not more than 1.0 %
4	Stripping test. (Coating and stripping of Bitumen aggregate mixtures)	----,,----	**97.00 %**	Minimum retained coating 95.0 %

*As Furnished by Client

The Results relate only to the items tested.

29/01/2015

Dr. MANJESH .L
ME(Civil Engg.) Ph.D., MISTE, MIRC
Associate Professor
Department of Civil Engineering
Bangalore University, Jnanabharathi Campus,
BANGALORE 560 056.
E-mail: maniesnl@yahoo.com

DEPARTMENT OF CIVIL ENGINEERING
BANGALORE UNIVERSITY

AE-9

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು,
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ಯಲಹಂಕ ವಲಯ,
ಬಿ. ಬಿ. ಎಂ. ಪಾ., ಬೆಂಗಳೂರು-97.

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★ ★ ★ ★ ★
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E-mail: centrans9@gmail.com

JNANA BHARATHI
BANGALORE - 560 056

BUB/CTE/2014-15

Date: 24-01-2015

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements and asphalting to Thindlu old village in Ward No 09}in Vidyaranypaura sub division (change of location Improvements and Asphalting to NTI layout 7th ,8th cross and other roads near park in Ward No 09}.
Ref.: Letter No. Testing/BUB/2014-15, dated 22-01-2015
Name of the Agency/Contractor* : Mr. C.Shivaraj, Contractor,BBMP, Bangalore.
Report required for* : Assistant Executive Engineer,
Vidyaranypaura Sub-Division, BBMP, Bangalore.

TEST RESULTS

1. Gradation Test:
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, IV Revision-2001
53	100.00	100
45	97.30	95-100
26.5	---	-
22.4	73.20	60-80
11.2	55.10	40-60
4.750	32.00	25-40
2.360	18.40	15-30
0.600	14.00	8-22
0.075	3.10	0-8

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G.R. HARISH
Professor
Department of Civil Engineering
Jnana Bharathi Compus
BANGALORE UNIVERSITY
Bangalore-560 056.

24/01/2015
Dr. MANJESH .L
ME (Civil Engg.,), Ph D MISTE.MIRC
Associate Professor
Department of Civil Engineering
Bangalore University Jnanabharathi Campus
BANGALORE- 560 056
e- mail: manjeshl@yahoo.com

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(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: Testing of Bitumen Premix Sample (Semi Dense Bituminous Concrete-SDBC).
{Project*: Improvements and asphalting to Thindlu old village in Ward No 09}in Vidyaranypaura sub division (change of location Improvements and Asphalting to NTI layout 7th ,8th cross and other roads near park in Ward No 09}.

Ref.: Letter No. Testing/BUB/2014-15, dated 27-01-2015

Name of the Agency/Contractor* : Mr. C.Shivaraj, Contractor,BBMP, Bangalore.

Report required for* : Assistant Executive Engineer,
Vidyaranypaura Sub-Division, BBMP, Bangalore.

TEST RESULTS :

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.09** %
2. **Gradation Test** :

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-15 of MORTH Specfications-2001 (Grading – 2)
13.2	**100.00**	100
9.5	**97.00**	90—100
4.75	**44.60**	35—51
2.36	**28.00**	24—39
1.18	**18.70**	15—30
0.3	**12.30**	09—19
0.075	**5.00**	03—08

*As Furnished by Client.

The Results relate only to the items tested.

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Jnana Bharathi Compus
BANGALORE UNIVERSITY
Bangalore-560 056.

29/01/2015
Dr. MANJESH .L
ME (Civil Engg .), Ph D MISTE.MIRC
Associate Professor
Department of Civil Engineering
Bangalore University Jnanabharathi Campus
BANGALORE- 560 056
e- mail. manjeshl@yahoo.com